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Report of
Geological and Magn
AUMACHO RIVER MINES LIMITED
Sudbury Mining Division - Ontario

PROPERTY

The property of Aumacho River Mines Limited consists of 36 contiguous, unsurveyed and unpatented mining claims numbered S-90543 to S-90552 inclusive and S-93886 to S-93911 inclusive.

10
26
36

LOCATION

The claim group is located in the northeast corner of Cunningham Township, Sudbury Mining Division, Ontario.

ACCESS

The property is best reached by aircraft from Chapleau, Ontario, a town on the main C.P.R. line connecting Sudbury and Port Arthur, Ontario. Chapleau is situated about 140 miles west of Sudbury along this line. From Chapleau, the property is about 40 air miles east. Two small lakes lie within the property boundaries. They can be used as landing fields for ski and float aircraft.

TOPOGRAPHY and PHYSIOGRAPHY

The property is quite flat with a few hills which break the monotony of the surface.

There are numerous swamps and muskegs but none of any great extent.

The area was burned over about 50 years ago and since that time has been covered with a good second growth. There are a few good stands of spruce but for the most part the species are poplar, birch and minor jackpine.

PROPERTY GEOLOGY

The consolidated rocks are all of Precambrian age. These are Keewatin lavas consisting largely of massive to pillowed andesites, porphyritic andesite, hornblende schist, minor tuff and rhyolite. Interbedded with the

Keewatin rocks is some Timiskaming iron formation.

The general strike of the Keewatin and Timiskaming rocks is east-west with dips to the south varying from 60 to 80 degrees.

Intruding the mentioned sequence are small dikes of feldspar porphyry, diorite porphyry of Algomian age and dikes of diabase of Keeweenawan age.

The various formations may be classified according to the following geological legend.

Table of Formations

Precambrian

Keeweenawan

Diabase (7a)

Algomian

Feldspar porphyry (6a), diorite porphyry (6b)

Timiskaming

Iron formation (5a)

Keewatin

Massive andesite (4a), pillowed andesite (4b), hornblende schist (4c), gabbro (4d)

Porphyritic Andesite (3a)

Tuff (2a)

Rhyolite (1a)

Description of Formations

Keewatin

Rhyolite (1a) - It is a light grey, siliceous, dense rock. An outcrop occurs on claim S-93901.

Tuff (2a) - These are greyish green and present a stratified appearance. Only a few outcrops of the tuffs were found.

Porphyritic Andesite (3a) - The porphyritic andesite is quite pronounced about Yarwood Lake. It is a greyish green rock with numerous white pheno-

crystals of plagioclase feldspar. They are in general small, not exceeding an eighth of an inch in diameter. During field mapping it was practically impossible to trace these horizons across the property. However from evidence gathered, it appears that they are flows rather than of intrusive origin.

Massive andesite, pillowed andesite (4b), hornblende schist (4c) gabbro (4d)

These are all predominantly dark green in color, but differ greatly in texture, ranging from fine grained to coarse grained and from massive to schistose.

Pillow and ellipsoidal structures were observed in many outcrops of these rocks.

Timiskaming

Iron Formation (5a) - The iron formation occurs interbedded with the Keewatin lavas. It consists chiefly of banded chert. In some places the chert is alternately white and grey with some pinkish bands. In other instances jasper bands are rather conspicuous. In certain cases the color varied from dark grey to black and it is felt that these were probably tuffaceous sediments rather than sedimentary iron formation. However, because of magnetite being present, they were mapped as iron formation.

The iron formation generally strikes east with fairly steep dips to the south. In some cases the strike changed to north-south and in these areas folding or dragging along unidentified fault zones are possible explanations.

Algoman

Feldspar Porphyry (6a) - Dikes of feldspar porphyry are numerous on claim S-93889. These are light to pinkish in color with phenocrysts of feldspar and minor quartz.

Diorite Porphyry (6b) - Just 100 feet northwest of the No. 1 post of claim

S-90343, two dikes of diorite porphyry were mapped. These are fine to medium grained, light grey in color with phenocrysts of feldspar up to an eighth of an inch in diameter.

Keweenawan

Diabase (7a) - Numerous dikes of typical diabase were mapped. These strike north-south and vary from 50 to 100 feet wide.

STRUCTURE

There were no prominent structural features observed from the geological mapping of the property.

Numerous faults are indicated by both surveys. One fault trending through the central part of the claim group is evident by offsetting of the diabase dike. Truncation of the high magnetics in the northeastern part of the property suggests a north-south striking fault along Yarwood Lake.

The disparity of widths of the iron formation suggests local flexuring or folding within the horizons.

ECONOMIC GEOLOGY

The bodies of iron formation are too low in iron content to be of value for iron. They consist chiefly of chert with little magnetite. Copper and zinc mineralization was discovered by Shunsby Gold Mines Limited in iron formation on their property in the central part of Cunningham township. Considerable detail surface work followed by diamond drilling failed to define commercial orebodies.

Two patented claims, numbered WD-12 and WD-13, lie in the north central part of the Aumacho group and in examination of the old trenches, it appears that gold was the mineral sought. Coarse pyrite mineralization in andesites was the only mineral observed.

A few other trenches were noted throughout various parts of the property but no mineralization of importance was discovered.

RESULTS OF THE MAGNETOMETER SURVEY

The main magnetic anomalies outlined indicate the horizons of iron formation. This is correlated as such from direct geological evidence.

A few of the smaller isolated magnetic highs indicate the intrusive diabase dikes and the coarser grained basic flows. Blebs of magnetite were noted in numerous outcrops of these rocks.

CONCLUSIONS

There was no economic mineralization uncovered or indicated from the combined surveys of the property. The areas covered by swamp and overburden have not been thoroughly investigated. It appears that these areas are underlain by rocks typical of the property. There is a remote possibility that in these swamp covered areas commercial orebodies may exist.

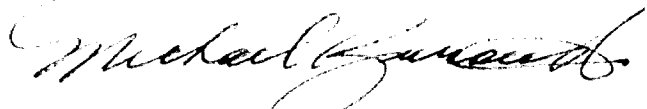
RECOMMENDATIONS

Without resorting to extreme expenses to investigate the swamp covered areas, it is recommended that an electromagnetic survey be conducted over them. Any tabular sulphide bodies should be delineated by this method.

Further exploratory work could be formulated based on the results of this survey.

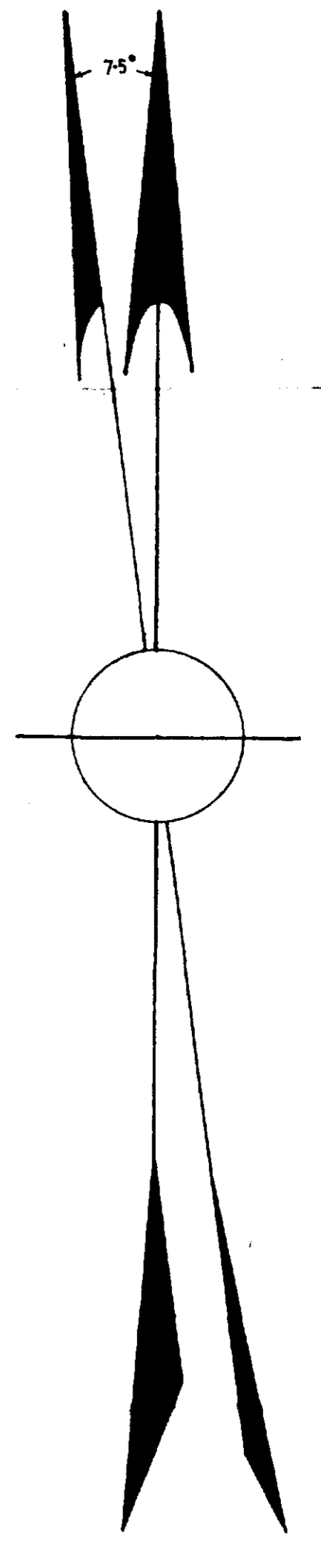
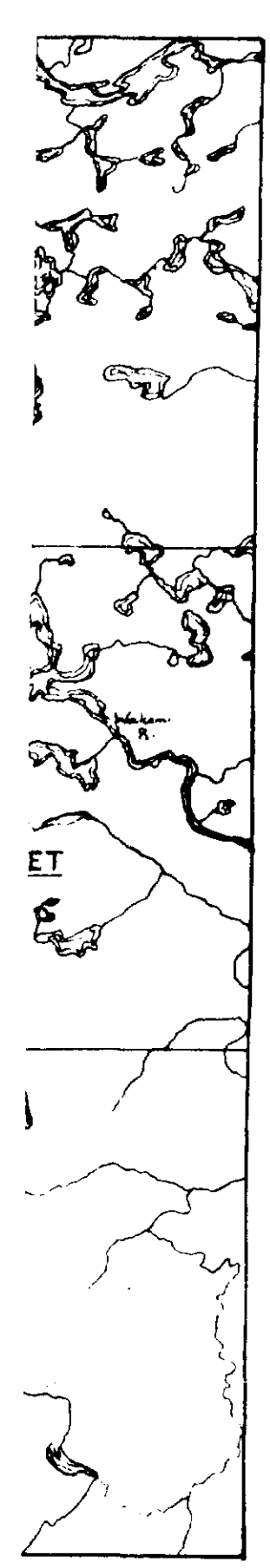
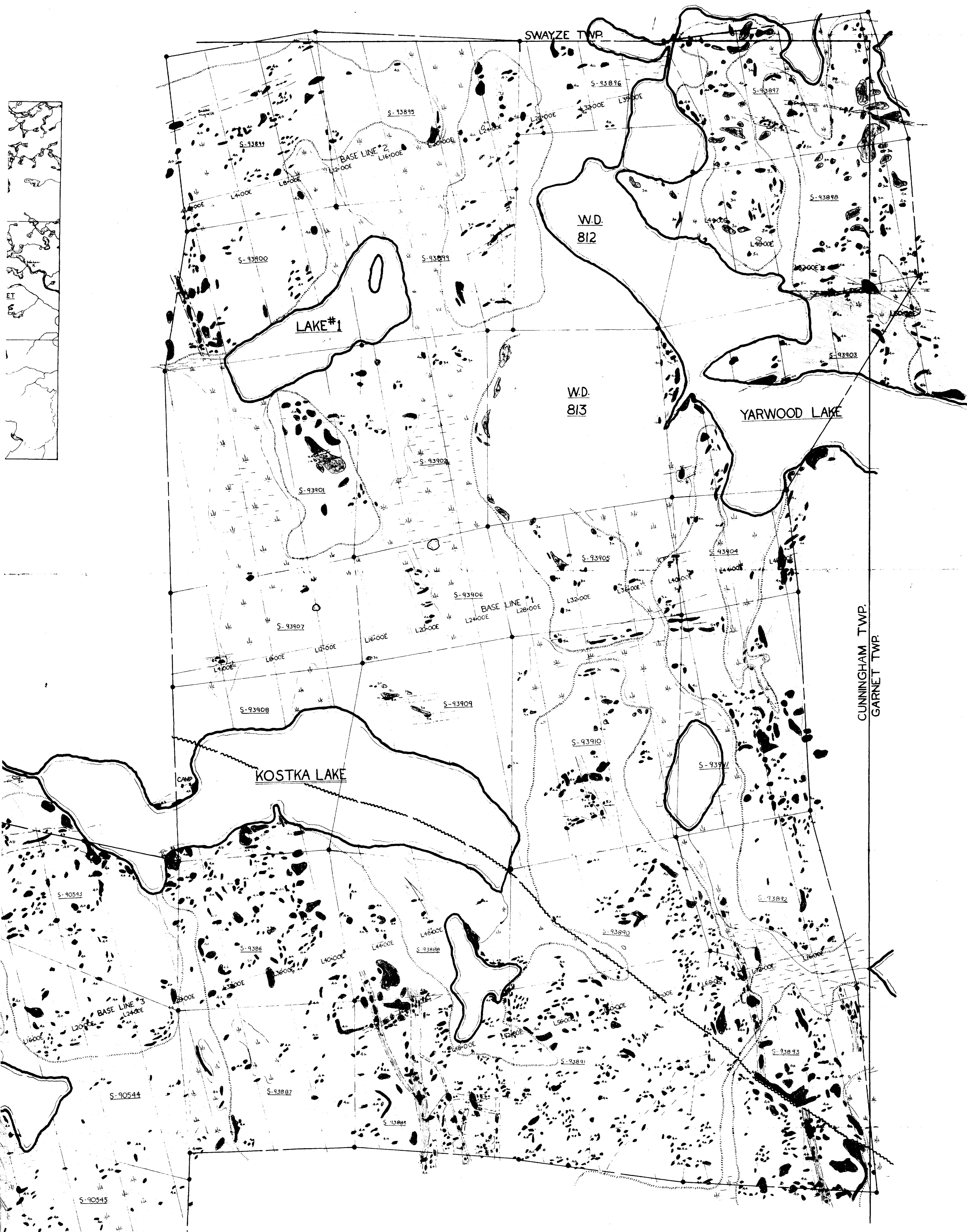
Respectfully submitted

SIMARD and KNIGHT



Michael Zurowski
Geologist.

Toronto, Ontario
October 10, 1956.



SYMBOLS

- HILL
- SWAMP
- OPEN SWAMP
- LAKE CONTOUR
- SHEAR
- DRAG FOLD
- CAMP
- PROSPECT TRENCH
- FAULT
- SULPHIDES
- PILLOW TOPS - OVERTURNED
- STRIKE AND DIP OF BEDDING
- STRIKE OR VERTICAL BEDDING
- STRIKE AND DIP OF SCHISTOSITY
- STRIKE OR VERTICAL SCHISTOSITY
- GEOLOGICAL BOUNDARY - DEFINED
- GEOLOGICAL BOUNDARY - ASSUMED
- FLOW CONTACT

LEGEND

- PRE-CAMBRIAN**
- KEWEEWAWAY**
- DABASE (1a)
- ALGOMAN**
- FELDSPAR PORPHYRY (6a), DIORITE PORPHYRY (6b)
- JIMISKAMING**
- IRON FORMATION (5a)
- KEEWATIN**
- MASSIVE ANDESITE (4a), PILLOWED ANDESITE (4b)
 - HORNBLende SCHIST (4c), GABBRO (4d)
 - PORPHYRITIC ANDESITE (3a)
 - TUFF (2a)
 - RHYOLITE (1a)

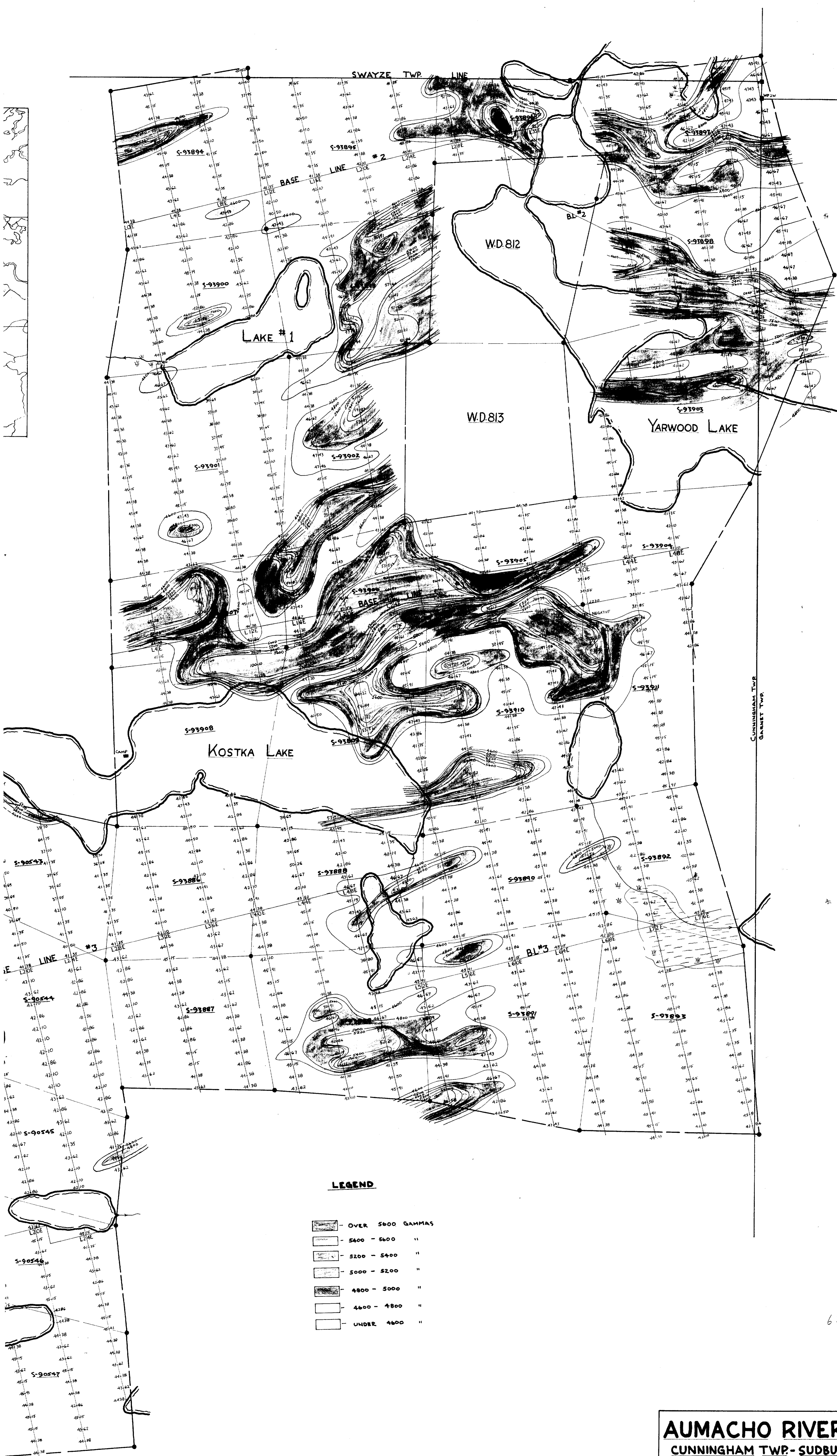
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**AUMACHO RIVER
MINES LIMITED**

SWAYZE AREA - SUDBURY MINING DIVISION - ONT.

SURFACE GEOLOGY

SCALE - 1 INCH = 300 FT.

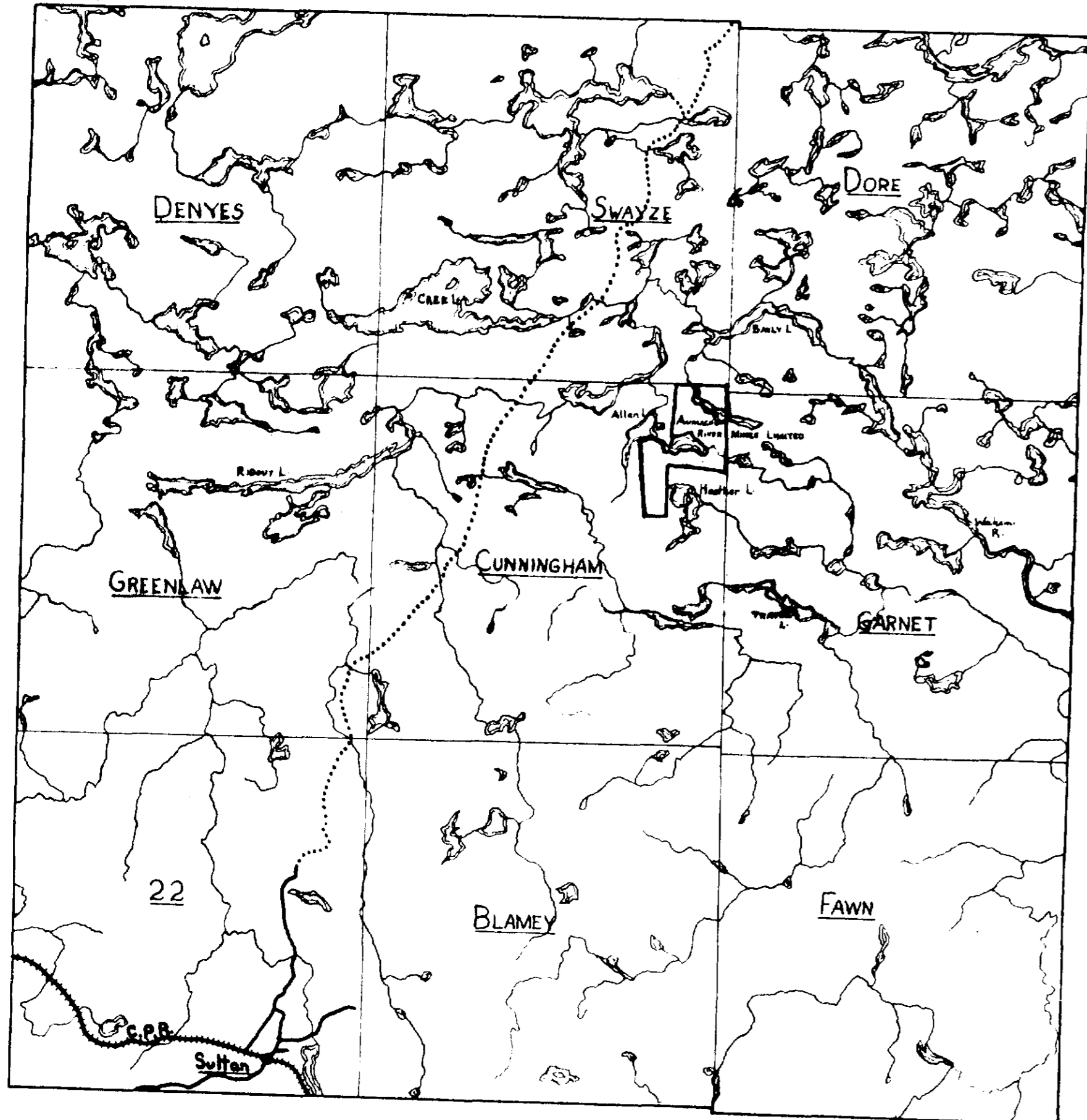


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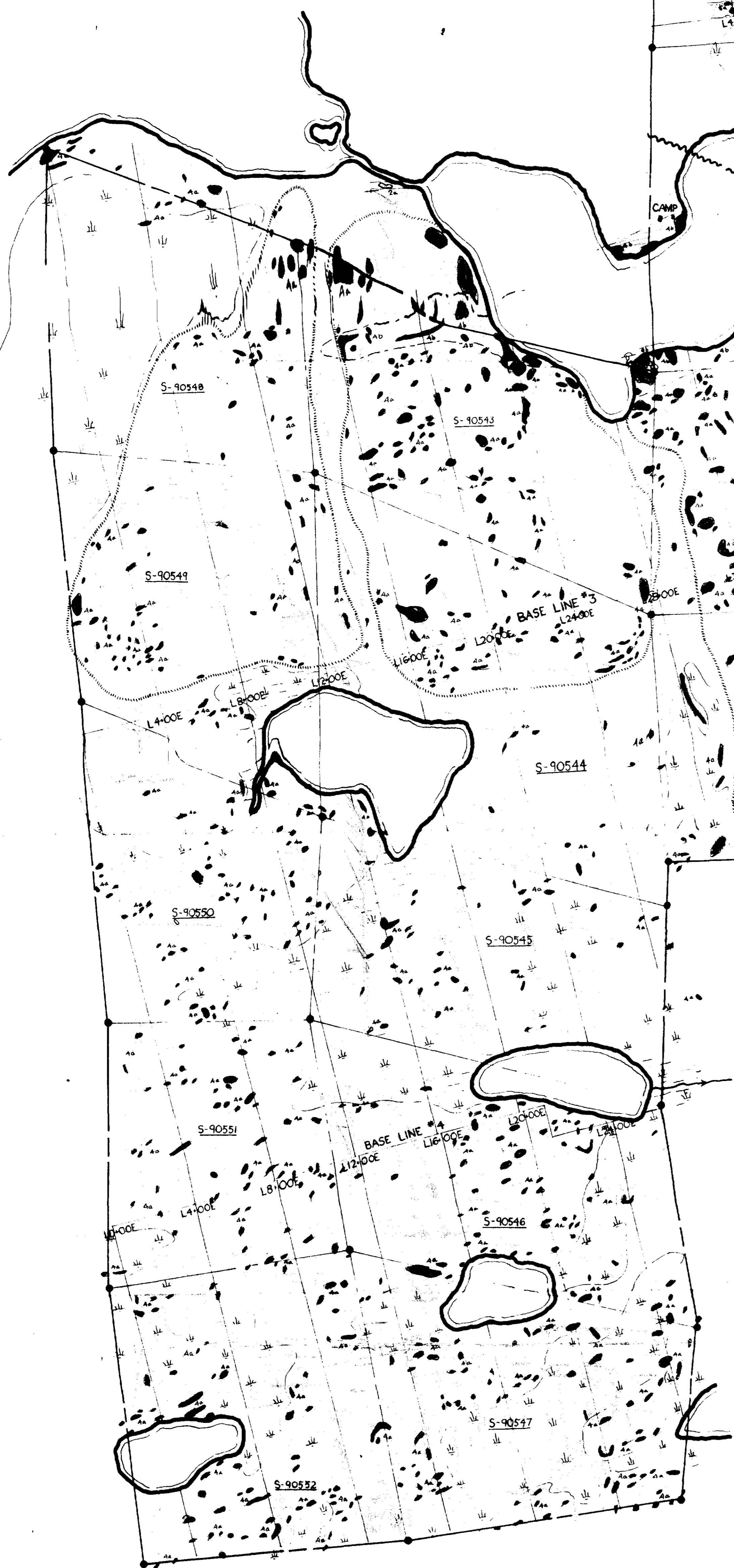
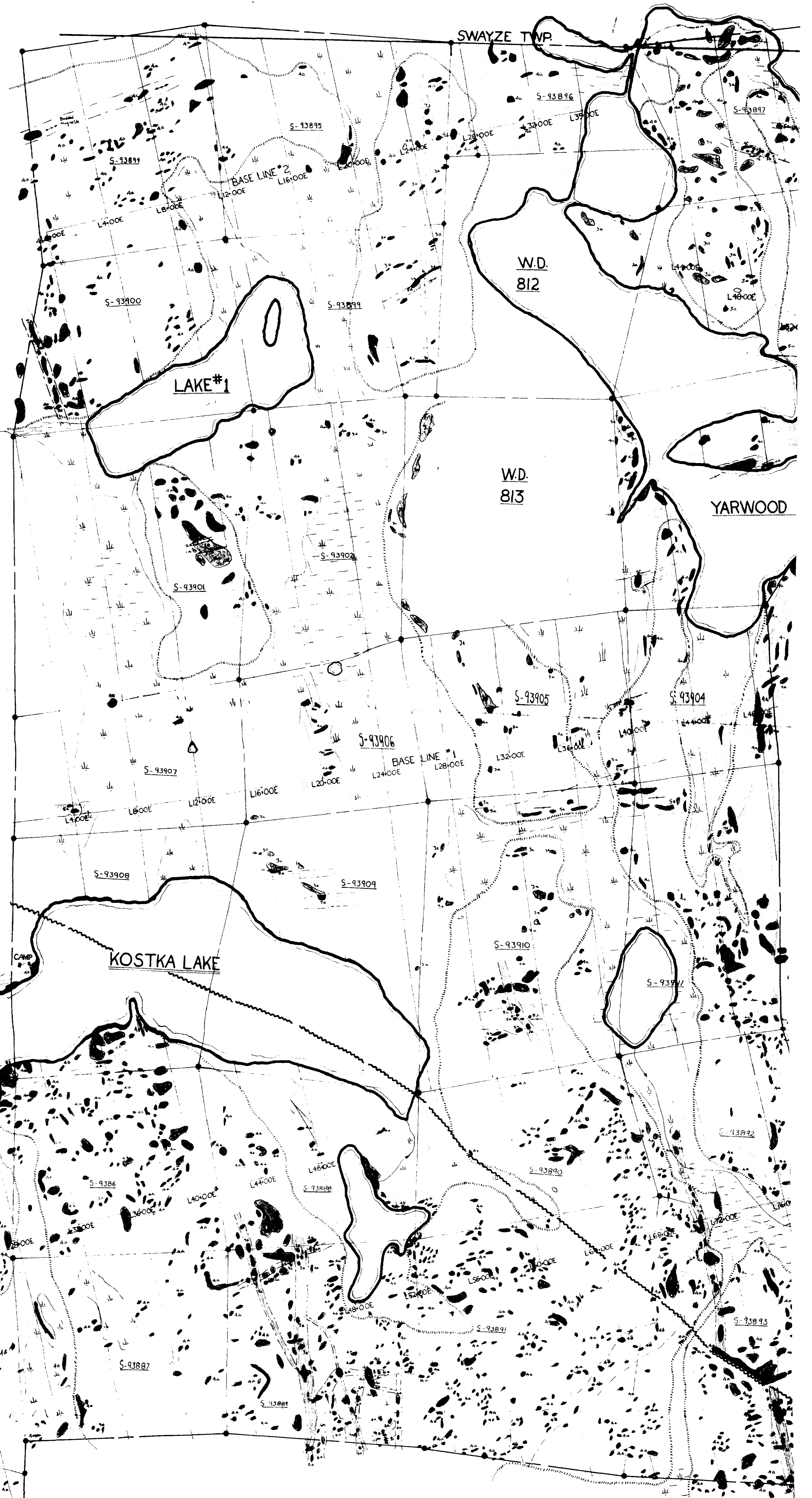
[Dark Grey Box]	OVER 5600 GAMMAS
[Medium-Dark Grey Box]	5400 - 5600 "
[Medium-Light Grey Box]	5200 - 5400 "
[Light Grey Box]	5000 - 5200 "
[Very Light Grey Box]	4800 - 5000 "
[White Box]	4600 - 4800 "
[White Box]	UNDER 4600 "

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AUMACHO RIVER MINES LIMITED
 CUNNINGHAM TWP.-SUDBURY MINING DIVISION-ONT.
PLAN OF MAGNETOMETER SURVEY
 SCALE = 1" = 300'



KEY MAP
Scale - 1 in. = 2 Mi.



SYMBOLS

- HILL
- SWAMP
- OPEN SWAMP
- LAKE CONTOUR
- SHEAR
- DRAG FOLD
- CAMP
- PROSPECT TRENCH
- FAULT
- SULPHIDES
- PILLOW TOPS - OVERTURNED
- STRIKE AND DIP OF BEDDING
- STRIKE OF VERTICAL BEDDING
- STRIKE AND DIP OF SCHISTOSITY
- STRIKE OF VERTICAL SCHISTOSITY
- GEOLOGICAL BOUNDARY - DEFINED
- GEOLOGICAL BOUNDARY - ASSUMED
- FLOW CONTACT

LEGEND

PRE-CAMBRIAN

KEEWENAWAN

- DIABASE (7a)
- INTRUSIVE CONTACT

ALGOMAN

- FELDSPAR PORPHYRY (6a), DIORITE PORPHYRY (6b)
- INTRUSIVE CONTACT

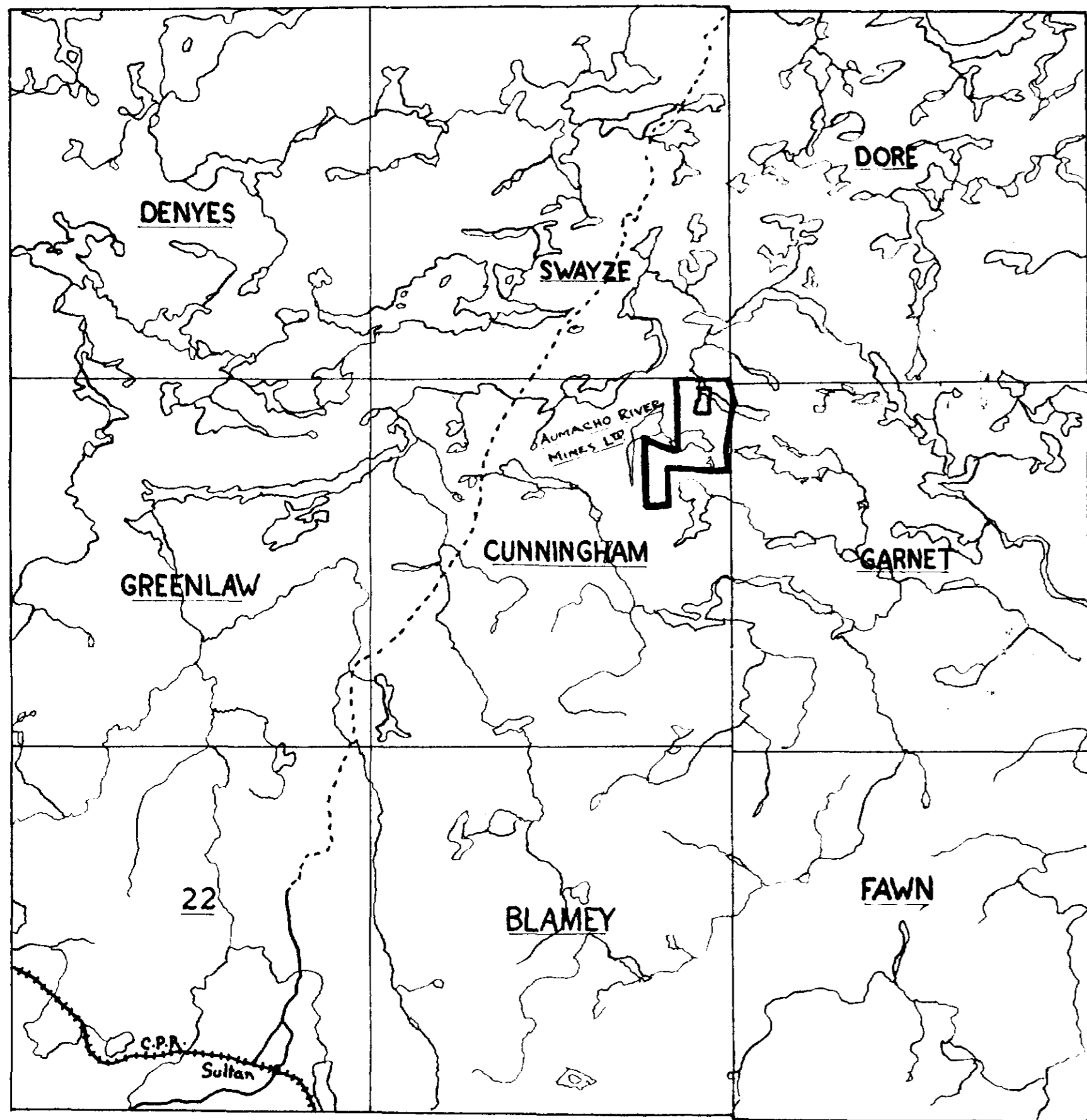
TIMISKAMING

- IRON FORMATION (5a)

KEEWATIN

- MASSIVE ANDESITE (4a), PILLOWED ANDESITE (4b)
- HORNBLLENDE SCHIST (4c), GABBRO (4d)
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- TUFF (2c)
- RHYOLITE (1a)

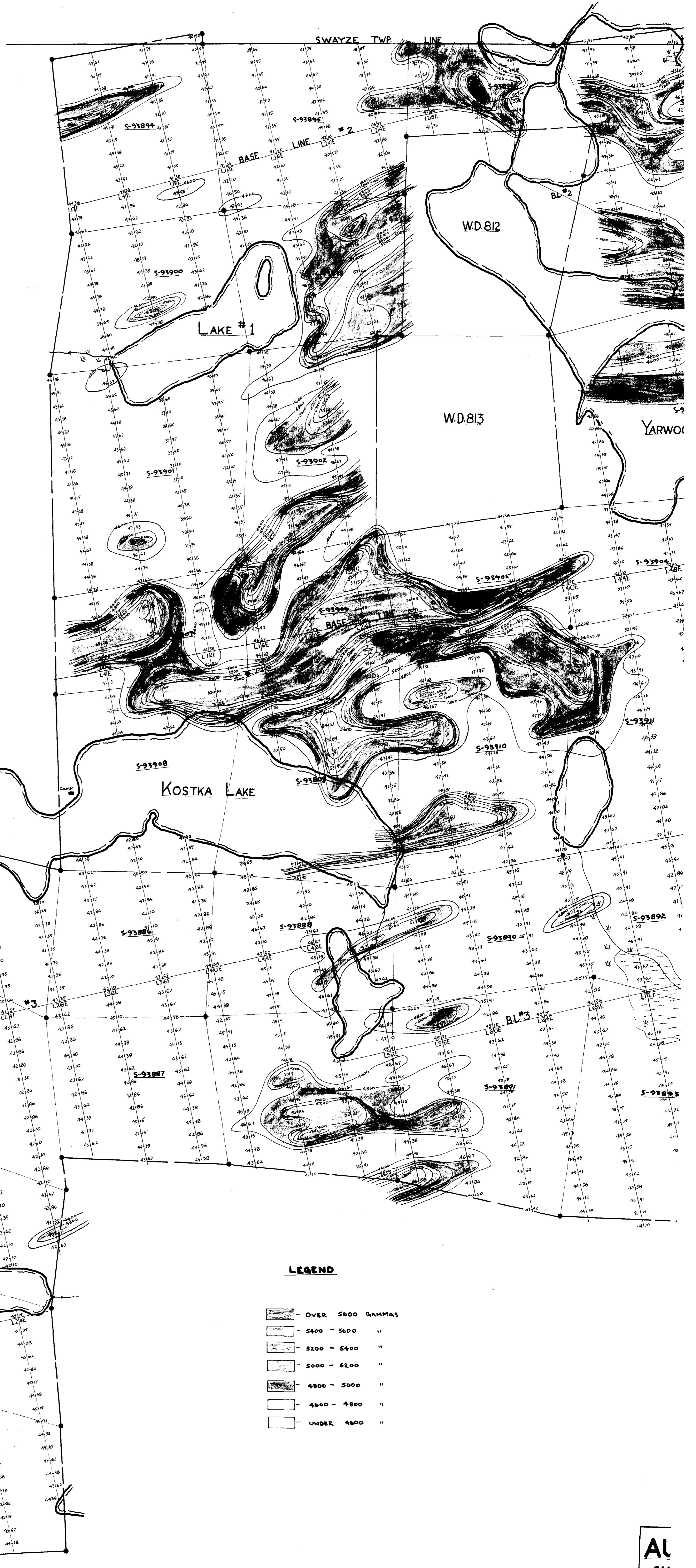




KEY MAP
SCALE... 1" = 2 MILES

SYMBOLS

- PICKET LINE
- LAKE
- SWAMP
- CLAIM POST
- TWP CORNER
- MAGNETIC OUTLINE



LEGEND

- OVER 5000 GAMMAS
- 5000 - 5200 "
- 5200 - 5400 "
- 5400 - 5600 "
- 5600 - 5800 "
- 5800 - 6000 "
- UNDER 4600 "

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